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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,186	09/09/2003	John T. Apostolos	D-2003-0107	3357
7590	02/28/2005		EXAMINER	
Robert K. Tendler 65 Atlantic Avenue Boston, MA 02110			VY, HUNG T	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 02/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/658,186

Applicant(s)

APOSTOLOS, JOHN T.

Examiner

Hung T. Vy

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-12 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 10/10/2003  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Acknowledges**

1. Receipt is acknowledged of the following items from the Applicant.  
Information Disclosure Statement (IDS) filed on 9/23/2003, 10/20/2003 and 9/26/2003. The references cited on the PTOL 1449 form have been considered.

### **Specification**

2. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### **Election/Restrictions**

3. Applicant's election with traverse of group I claims 1-12 in the reply filed on 01/18/2005 is acknowledged. The traversal is on the ground(s) that the searches for group I would be co-extensive. This is not found persuasive because the claims 13-17 would be classified in a different class than claims 1-12.
4. The requirement is still deemed proper and is therefore made FINAL.

### **Claim Rejections - 35 USC § 112**

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 12, the phrase "can be" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

### **Claim Rejections - 35 USC § 102**

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

35 U.S.C. § 102(e), as revised by the AIPA and H.R. 2215, applies to all qualifying references, except when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. For such patents, the prior art date is determined under 35 U.S.C. § 102(e) as it existed prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. § 102(e)).

7. Claims 1-3 and 10 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Gelin, U.S. Patent. No. 3,987,456.

Claims 1 and 10, Gelin discloses a wide bandwidth discone antenna comprising: a circular disc 10; a frusto conical cone in the form of a skeleton having conductive members extending from the apex of the cone in a conical configuration (see fig. 1 and see column 1, line 39-48), said apex spaced from said disc (see fig. 7); and meander line stubs 21,22 interposed in said conductive members (See fig. 1a), whereby the low frequency cutoff of said antenna is decreased over a similarly sized antenna without said stubs (See fig. 1 and fig. 7).

Claim 2, Gelin discloses a peripheral conductive ring 24 coupled to the distal ends said conductive members, thus to eliminate ground effects when said antenna is deployed (see fig. 1a).

Claim 3, Gelin discloses the antenna a coaxial cable feed 4 for said antenna, said coaxial cable having a center conductor coupled to said circular disc 11 and an outside conductor coupled to said cone at the apex thereof, said center conductor extending beyond said cone to said disc (see fig. 1a).

### **Claim Rejections - 35 U.S.C. § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5, 6 and 8 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Gelin, U.S. Patent. No. 3,987,456 in view of Josypenko, U.S. Patent No. 6,268,834.

Regarding claims 5, 6 and 8, Gelin discloses all limitations of invention except for an inductor connected between cone and disc. However, Josypenko discloses the inductor 22 (See fig. 3). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Gelin to have inductor as taught by Josypenko. The motivation for doing so would have been to provide inductor in order to have the low frequency cutoff of the antenna (See column 5, line 53-58).

Claim 7, Josypenko discloses additional antenna is a discone antenna (see fig. 2)

10. Claims 4, 9 and 11 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Gelin, U.S. Patent No. 3,987,456 in view of Svy, U.S. Patent No. 4,786,911.

Regarding claims 4 and 9, Gelin discloses all limitations of invention except for a second discone antenna. However, Svy discloses the second discone antenna (see fig. 2). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Gelin to have second discone as taught by Svy. The motivation for doing so would have been to provide second discone antenna in order to have the two radiators to combine in a manner that results in far field circular polarization (See abstract).

Claim 11, Svy disclose an additional discone antenna, it is inherent said discone antenna converging different frequency band because they have different size discone antenna (See fig. 5).

11. Claim 12 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Gelin, U.S. Patent. No. 3,987,456 in view of Engargiola, U.S. Pub. No. 2003/0016181.

Claim 12, Gelin discloses all limitations of invention except for except for forming the cone with a series of separate electrically conductive member. However, Engargiola discloses forming the cone with a series of separate electrically conductive member (See fig. 8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the cone with a series of separate electrically conductive, since it has been held that the provision of adjustability, where needed, involves only routine skill in the art. In re Stevens, 101 USPQ 284 (CCPA 1954).

### **Conclusion**

12. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (571) 272-1954.

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The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 308-7722 for After Final communications.

Information regarding the status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either private Pair or Public Pair. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hung T. Vy  
Art Unit 2821  
February 3, 2005

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800